Joint Modeling & Simulation Capability Working Group

Joint Training Data Services (JTDS)

Worldwide Joint Training and Scheduling Conference

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Purpose

- To provide an information briefing on the Joint Training Data Services (JTDS) tool and the capabilities it has to support rapid scenario generation

Outline

- JTDS Overview
- Bottom Line
- What is JTDS
- JTDS Users
- JTDS Order of Battle Service
- Data Repository
- Source Data for Simulation Terrain
- JFCOM Terrain Team
- Conclusion

JTDS Overview

- JTDS directly supports the Training Transformation Top 10 task to “improve capabilities to rapidly generate scenarios and other exercise planning functions” as listed in 5 February 2009 Strategic Plan for Transforming DoD.

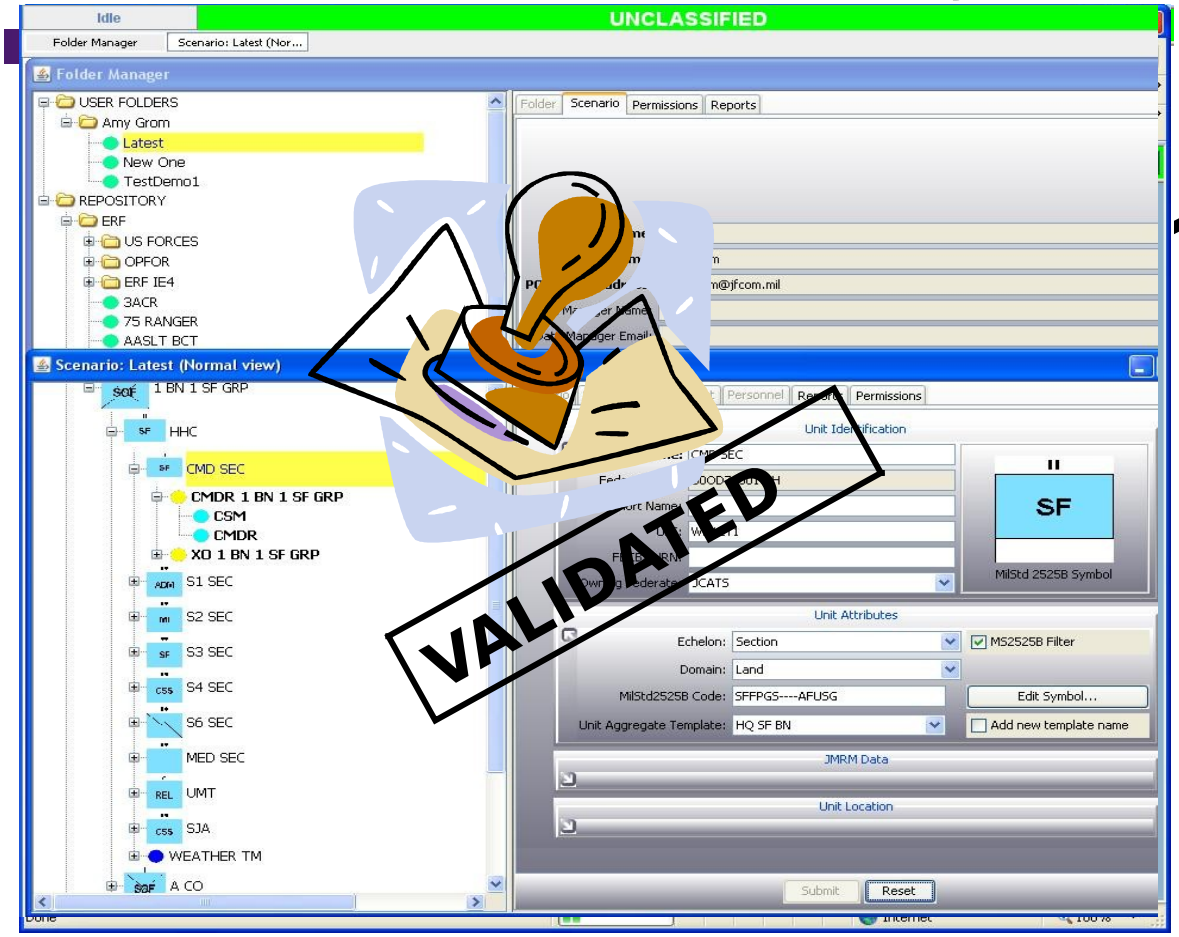
- JTDS has been validated as a requirement by the JROC

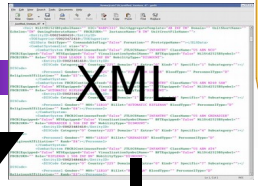
- JTDS is a web-based suite of classified and unclassified authoritative databases and tools that supports rapid scenario generation for the US DoD Modeling & Simulation Training Community

Bottom Line

- JTDS is the only functioning capability of the Joint Rapid Scenario Generation (JRSG) concept
- JTDS is a capability that saves money and time during exercise preparation by reusing existing data that is ready for production (terrain, force structure and weather)
- Allows training audience to rapidly build scenario generation files in support of short notice exercise requirements such as mission rehearsals
- Allows DoD users (197 currently) to access and exchange information via web services at no cost to the users

What is JTDS





Scenario Initializatio

Why JTDS

- Increase the quality of data used to support events
  - Data Correlation
  - Best available source data
- Support short notice Mission Rehearsal Exercises
- Save money on scenario development
  - Reduces Need to Travel for database validation
  - Reuse of datasets

JTDS Users

- JTDS currently supports users of the JLVC federation, the Air Force Modeling and Simulation Training Toolkit (AFMSTT) and Army's JLCCTC Entity Resolution Federation (ERF)
- JTDS produces terrain that supports JTLS, JCATS, Navy JSAF, and Army's OneSAF simulations. In FY10 JTDS will support the Marine Corps' MTWS.
- Current users of JTDS include the Army, Marine Corps and Air Force.
- The Army's National Simulation Center is "delivering" JTDS to its Battle Command Training Centers that use their entity resolution federation. JFCOM has supported this delivery by fielding JTDS to III Corps at Fort Hood and Joint Multinational Simulation Center in Grafenwoehr, Germany.

JTDS Order of Battle Service (OBS)

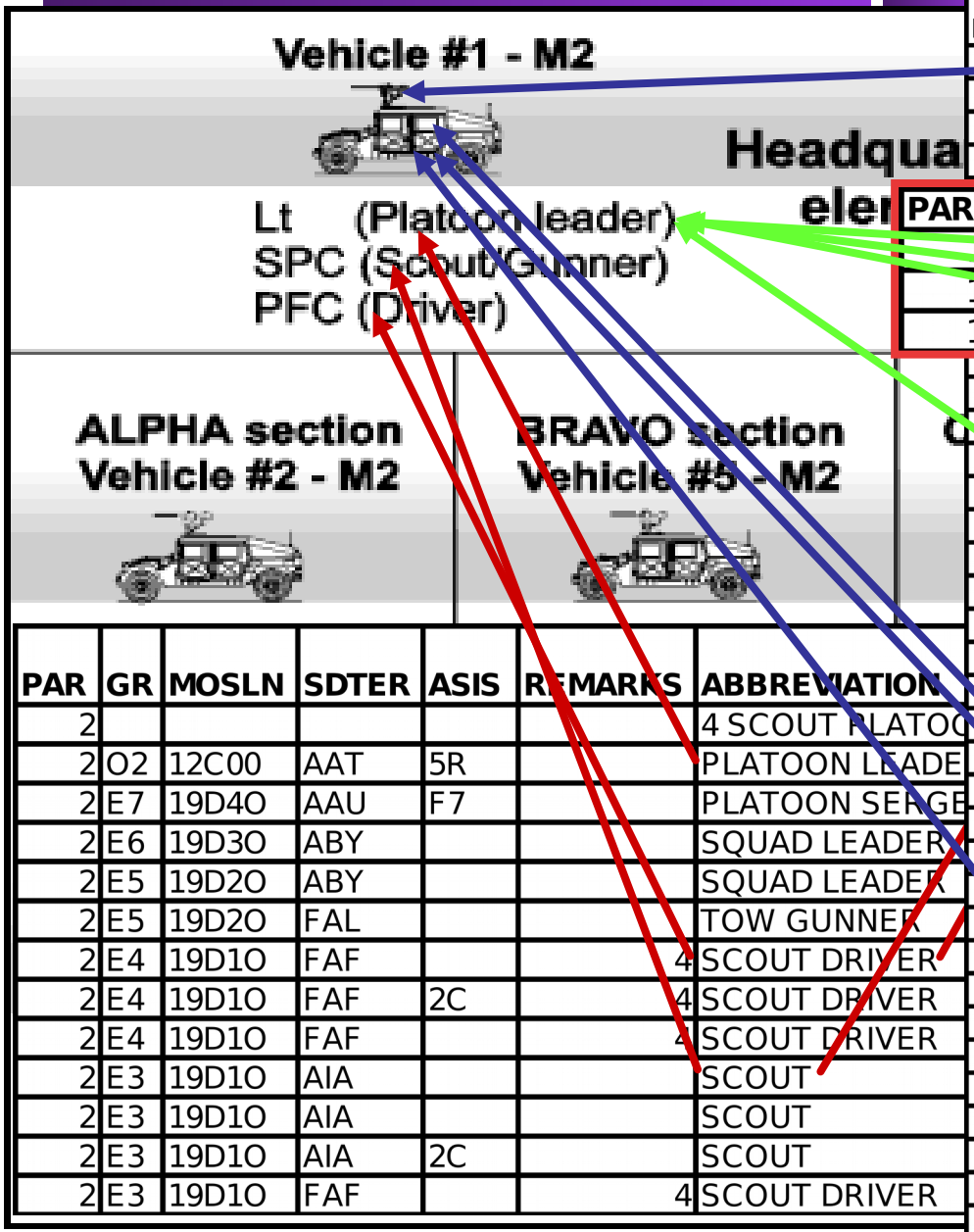
- Web-based open Joint data repository
  - Source data validated by Service authority
  - Merged for completeness
  - Correlated for federation use
  - Distributed access
- Subset of repository data forms exercise scenario
  - “Drag and drop” speeds selection from repository
  - Data available for review throughout exercise preparation phases
- Scenario file is generated in intermediate format (XML)
  - Federates use what they need
  - Ensures correlation
  - Saves time
  - Supports last minute changes or requirements

Federation Data (Stryker ICV)

ATTRIBUTE NAME	SAMPLE ATTRIBUTE
COMBAT SYSTEM NAME	M1126 STRYKER ICV MK 19
JTLS CS NAME	APC-LA-OW2
ENUMERATION	1/1/225/2/5/18/0
ROLE	PL-1-A-4-2 ACR
BUMPER NUMBER	A-16
URN	123456
LIN/TAMC	J22626
WEAPON LIN	M92362
FSC	2320
NIIN	14818575
PARENT UNIT	1-A-4-2 ACR
NET TYPE	COMMAND
NET	PLT 1-A BN1
COMMUNICATION DEV	SINGARS
NET POS	0
NET TYPE	COMMAND
COMMUNICATION DEV	EPLARS
NET	CO A BN1
NET POS	2
LOCATION	LAT/LON

SYSTEM CLASS	M STATUS	GRADE	MOS	BILLET
US CREWMAN RIFLE	C	E4	11B1O	IAV DRIVER
US CREWMAN RIFLE	C	E5	11B2O	IAV COMMANDER
US CBT OFFICER	P	O2	11A00	PLATOON LEADER
US CBT NCO	P	E6	11B3O	SQUAD LEADER
US M240G	P	E4	11B1O	MACHINEGUNNER
US M240G	P	E4	11B1O	MACHINEGUNNER
US ASST GUNNER	P	E3	11B1O	AMMUNITION HANDLER
US ASST GUNNER	P	E3	11B1O	AMMUNITION HANDLER
US ASST GUNNER	P	E3	11B1O	ASST MACHINEGUNNER
US ASST GUNNER	P	E3	11B1O	ASST MACHINEGUNNER
US FO	P	E5	13F2O	FORWARD OBSERVER

Source Data Unit Structure



PAR	GR	MOSLN	SDTER	ASIS	REMARKS	ABBREVIATION
2						4 SCOUT PLATOO
2	O2	12C00	AAT	5R		PLATOON LEADE
2	E7	19D4O	AAU	F7		PLATOON SERGE
2	E6	19D3O	ABY			SQUAD LEADER
2	E5	19D2O	ABY			SQUAD LEADER
2	E5	19D2O	FAL			TOW GUNNER
2	E4	19D1O	FAF		4	SCOUT DRIVER
2	E4	19D1O	FAF	2C	4	SCOUT DRIVER
2	E4	19D1O	FAF		4	SCOUT DRIVER
2	E3	19D1O	AIA			SCOUT
2	E3	19D1O	AIA			SCOUT
2	E3	19D1O	AIA	2C		SCOUT
2	E3	19D1O	FAF		4	SCOUT DRIVER

PAR	MOSLN	SDTER	ABBREVIATION	BOIP
2	L91075	A	MG CAL.50 HB FLEX	I016AA
2	L92386	A	MG 7.62MM LT FLEX	I101AA
2	M12647	A	MOUNT MACH GUN 40MM	I087AA
2	M51419	C	MSL SIM ROUND TOW	I048AA
1	B49272	B	BAYONET KN 5.56 RIFLE	
1	M12418	A	MASK CHEM BIO XM40	G011AA
1	R95035	A	RIFLE 5.56MM M16A2	I011IA
2	M79678	A	MONOCULAR NIGHT VISION	I111AA
2	M92362	A	MACH GUN GREN 40MM	I016AA
2	M92841	A	MACH GUN 7.62MM M240B	I101AA
2	N04456	A	NI VIS GOG AN/PVS-5	I002AA
2	N04596	A	NI VIS SIGHT AN/TVS-5	I001AA
2	N04732	A	NI VIS SIGHT AN/PVS-4	I013AA
2	N04982	A	NI SIGHT EQUIP THERIMG	I004AA
2	N05050	A	NI VIS SIGHT ANUAS-11	I012AA
2	N05482	A	NIGHT VIS GOG AN/PVS7	I022AA
2	N95862	B	NAV SET: AN/PSN-11	C127AA
2	P06148	B	PLT EW SYS AN/TRS-2(V)	
2	P49587	B	VEN RDO ST AN/VSQ-2 V	C134CI
2	P95280	B	PUMP UNIT CCF	Q030AA
2	Q20935	B	RADIACMETER IM-93/UD	G020GA
2	Q21483	A	RADIACMETER IM-174/PD	G010AA
2	R20684	B	RADIAC SET AN/VDR-2	G010AA
2	R31061	B	RADIAC ST AN/UDR-13	G020GA
2	R56742	B	REEL EQPT CE-11	
2	R59160	B	REELING MACH RL-39	B009AB
2	R68010	A	RADIO SET AN/VRC-91A	C198AF
2	R68078	A	RADIO SET: AN/VRC-91D	C198AF
2	S64488	B	DIG VOICE TER TSECKY68	B009AB
2	T05096	P	TRK UTIL TOW CARR ARMD	
2	T24690	P	TARGET ACQUISITION SYS	I048AA
2	T31872	B	PHONE WIRE MX-10891/G	B009AB
2	T60185	A	TELESCOPE: STRAIGHT W/	I098AA
2	T92242	P	TRK UTIL ARMT 1 1/4T	T053AA

Data Repository

Raw
Data Sources

DATA PRODUCTION CELL

Force Structure

Models

Terrain

SIM USEABLE DATA

Simulations

JCATS

JDLM

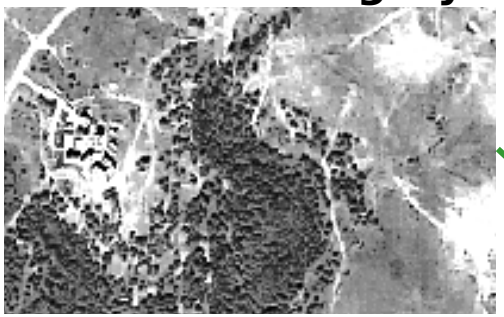
SIM SIMPLE C4I

TACSIM

AWSIM2

Source Data for Simulation Terrain

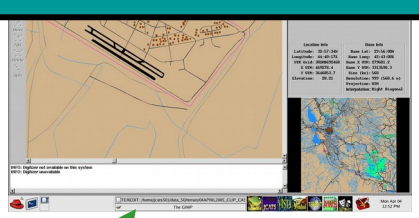
National Imagery



Field

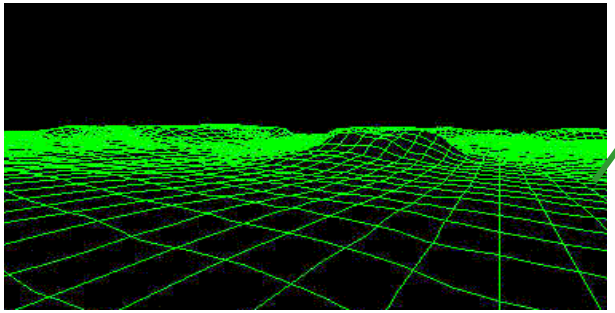
All source data used to create simulation terrain is usually conflicting!

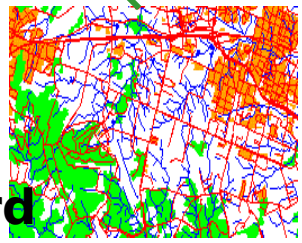
Other



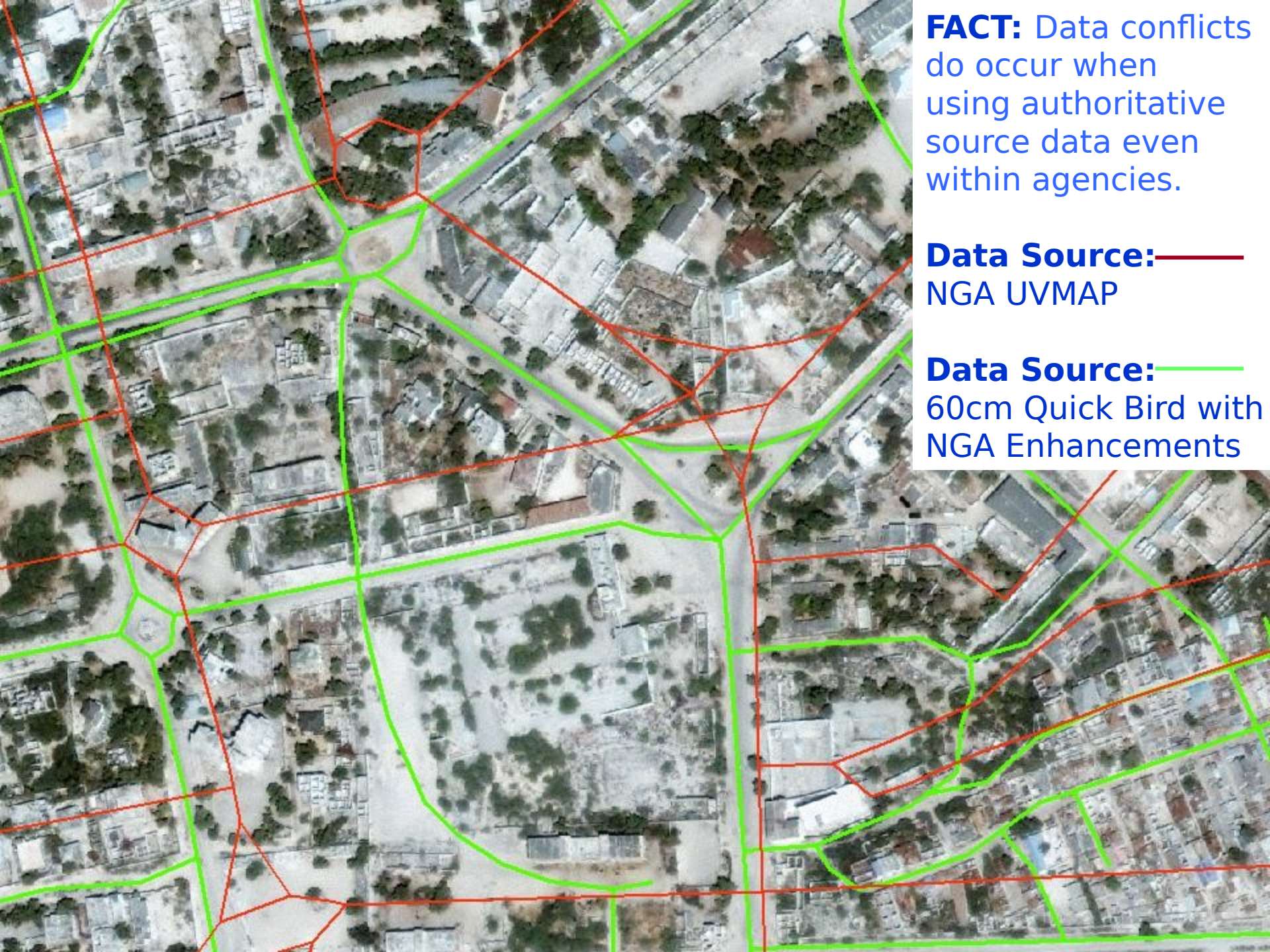
Collection

Commercial Imagery





Standard Maps & Charts

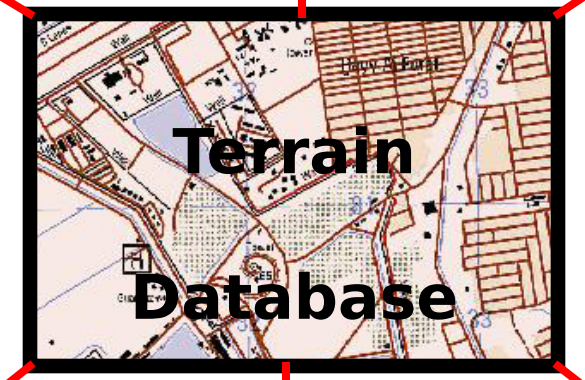

FACT: Data conflicts do occur when using authoritative source data even within agencies.
Data Source:
NGA UVMAP
Data Source:
60cm Quick Bird with NGA Enhancements

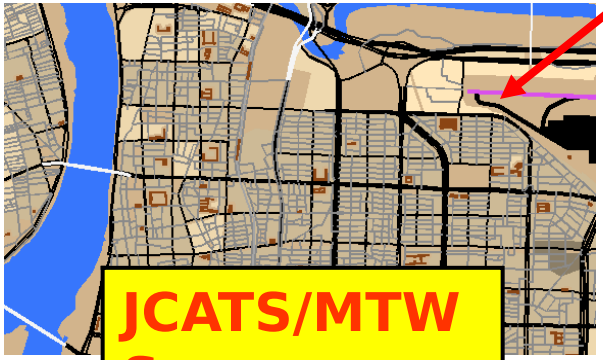
JFCOM Terrain Services

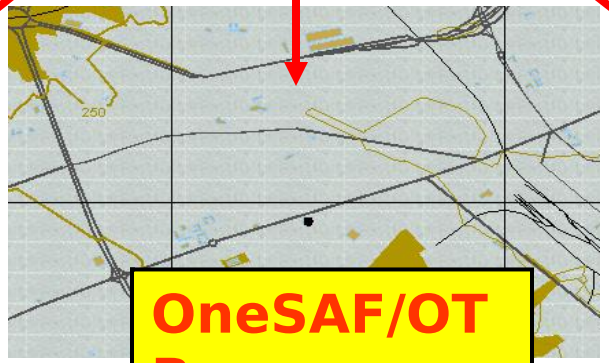
- Users who require more complex or custom terrain can take advantage of JFCOM's Terrain Services Team.

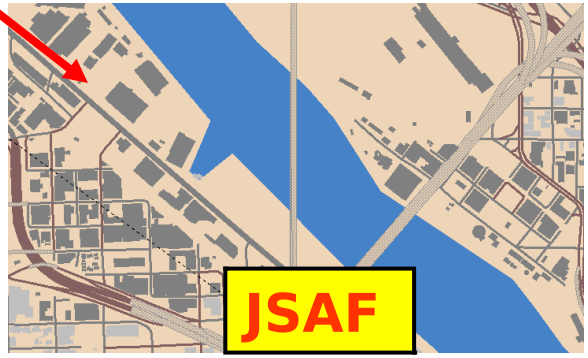
- A team of geographers, imagery analyst and 3D modelers capable of meeting your Joint Live, Virtual, Constructive and Gaming (LVCG) training requirements with authoritative, correlated multi-resolution terrain simulations databases reducing time and costs - today.

JFCOM: Terrain Services Product Lines









Conclusion

- JTDS is an enterprise solution that provides a rapid scenario generation capability
- JTDS provides a web based service for classified and unclassified users
- Using JTDS saves money and time during exercise preparation by reusing existing data that is ready for production (terrain, force structure and weather)
- JTDS fills a gap defined in the 2009 Strategic Plan for Transforming DoD

QUESTIONS?